

REMARKS

Claims 1, 4-9, 12-24 are pending in this application. Currently claims 15-20 are withdrawn from further consideration. By this Amendment, claims 6, 12, 21 and 22 are amended. No new matter is added. Reconsideration of the application is respectfully requested.

Applicants thank Examiner Chang for the courtesy extended to Applicants' representative during the April 25 telephone conference discussing the April 18 Advisory Action. The substance of the telephone discussion is incorporated into Applicants' response.

I. Request for Personal Interview

In order to advance the prosecution of this application, the Examiner is requested to contact Applicants' representatives to schedule a personal interview before acting on the application.

II. Formal Matters

The Office Action rejects claim 6 under 35 U.S.C. §112, first paragraph. The Office Action alleges that claimed invention is not enabled. Applicants respectfully disagree.

During the April 25 telephone interview, Examiner Chang indicated that the arguments presented in the April 10 Amendment After Final Rejection were not persuasive. However, the April 18 Advisory Action did not provide an explanation. Therefore, Applicants respectfully request the Patent Office to explain in writing why the arguments were not persuasive.

Citing *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976), the Office Action alleges that the subject matter of claim 6 is not enabled, asserting that: "Polarized recording reference, object beam and reconstructed beam and certain kind of polarization rotation means are critical or essential to the practice of the invention, but not included in the claims(s) is not enabled by the disclosure." However, Applicants respectfully submit that the

Office Action misapplies the case law because, contrary to the facts of the cited case law, the specification of this application does not set forth a specific feature at a specific location as being essential or critical to practicing the method.

Therefore, the standard for determining enablement of "without undue experimentation by those skilled in the art" should apply in this case. As discussed in the November 2, 2005 Amendment, Applicants respectfully submit that the features recited in claim 6 may be achieved by those skilled in the art without undue experimentation, such as by providing a polarization rotation means, as recognized by the Office Action. See MPEP §2164.01.

Furthermore, claim 6 is a method claim directed to reproduced information being re-recorded and retained with a polarization state, not to how the polarization state is changed. Therefore, Applicants respectfully argue that the basis for the rejection does not correspond to the claim recitation.

However, in order to more effectively and efficiently advance prosecution and to avoid unnecessary delay, claim 6 is amended. In particular, claim 6 is amended to recite that when re-recording the reproduced information as a hologram in the same position on the optical recording medium as the predetermined position from which the information was reproduced, the reproduced information is re-recorded and retained with a polarization state so that a polarization state of a reconstructed beam obtained from the re-recorded hologram is different from a polarization state of a reconstructed beam obtained from the hologram preceding the re-recording. This feature can be achieved by those skill in the art without undue experimentation based on the disclosure in the specification, and in particular, based on page 8, line 15-page 9, line 16 and page 24, line 22-page 25, line 8. As such, withdrawal of the rejection is respectfully requested.

The Office Action objects to the respective phrase "wherein the subsequent re-recording and retaining is performed when..." recited in claims 21 and 22. Claims 21 and 22 are amended to improve the clarity. The objected-to typographical errors in claims 21 and 22 are deleted from the claims.

The Office Action objects to the phrase "predetermined value" recited in claims 21 and 22. Applicants respectfully asserts that the claimed languages must be interpreted in light of the specification, and page 18, lines 1-17 of the specification, for example, clearly describes with an example that the predetermined value and number may be thresholds. As such, Applicants respectfully submit that the phrase "predetermined value" is clear.

The Office Action objects to the word "fallen" recited in claim 21. Claim 21 is amended to change the word "fallen" to --decreased--, to obviate the objection. During the April 25 telephone interview, Examiner Chang asserted that the word "decreased" has a meaning that there is an element that decreases a value, and thus that claim 21 needs to positively recite an element that "decreases" the intensity of a reconstructed beam. However, Applicants respectfully submit that claim 21 is a method claim and therefore does not need to recite a structural feature of a device in which such a method may be used.

The Office Action objects to the phrase "the subsequent re-recording and retaining includes position information representing a position" recited in claims 4 and 12. Claims 4 and 12 are amended to obviate the rejection.

The Office Action objects to the phrase "re-record and retain" recited in the claims. In particular, the Office Action asserts that the word "retain" is unclear. Applicants respectfully submits that the word "retaining" has an ordinary dictionary definition of "keeping" or "holding." It is believed that those skilled in the art would understand the meaning of the word "retaining" without any confusion.

At least for these reasons, Applicants respectfully request withdrawal of the objections.

Claims 15-20 are currently withdrawn from the consideration. However, because claims 15-20 depend from claim 21, these claims should be rejoined and allowed upon allowance of claim 21.

III. The Claims Define Patentable Subject Matter

The Office Action rejects claims 21, 9, 22 and 24 under 35 U.S.C. §102(b) over U.S. Patent No. 5,016,953 to Moss et al. (Moss). This rejection is respectfully traversed.

Claim 21 recites that the reproduced information is subsequently re-recorded and retained in the optical recording medium, without changing the reproduced information, when an intensity of a reconstructed beam has decreased to a predetermined value or less.

The Office Action alleges that "since the claim fails to teach what the predetermined value is, the value can be arbitrarily set and it means there must be at least one 'predetermined value' such that the intensity of a reconstructed beam has fallen to" (emphasis added). However, as admitted by the Patent Office, Moss specifically teaches to repeat the subsequent re-recording process until a desired uniformity in the final hologram is provided. In Moss, the subsequent re-recording process does not depend on the level of the intensity of a reconstructed beam but depends on the desired uniformity in the final hologram. That is, Moss does not determine the intensity or compare the current intensity with the earlier intensity. Thus, although the intensity of the exposure beam may be reduced than the earlier exposure beam, such reduced intensity does not cause the subsequent re-recording process to occur.

Thus, Applicants respectfully submit that claim 21 is patentable over Moss.

Claim 22 recites that the reproduced information is subsequently re-recorded and retained when the number of times of reproduction has exceeded a predetermined value.

Similar to the above, in Moss, the subsequent re-recording process does not depend on the number of times of reproduction but depends on the desired uniformity in the final hologram. Thus, claim 22 is patentable over Moss.

Claims 9 and 24 are patentable at least for their dependence on claims 21 and 22, as well as for the additional features they recite.

Accordingly, withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 21, 9, 13, 22 and 24 under 35 U.S.C. §102(e) over U.S. Patent No. 6,707,585 to Tanaka. This rejection is respectfully traversed.

Claim 21 recites, *inter alia*, the reproduced information is subsequently re-recorded and retained in the optical recording medium, without changing the reproduced information, when an intensity of a reconstructed beam has decreased to a predetermined value or less.

The Office Action alleges that because the claim does not specify what the "predetermined value" is, Tanaka anticipates this feature because "it is implicitly true that the intensity of a reconstructed beam in the re-recording process can be less than an arbitrarily set "predetermined value."

However, similar to the discussion above with respect to Moss, and as discussed in the November 2, 2005 Amendment, even if the intensity of the reconstructed beam in the re-recording process of Tanaka may be less than a predetermined value, Tanaka does not teach or suggest that the operation of the subsequent reproducing and retaining are controlled by the intensity of the reconstructed beam. For example, Tanaka does not teach or suggest any means to measure the intensity of the reconstructed beam or use the measured intensity for controlling the operation of the subsequent reproducing and retaining.

Moreover, Tanaka teaches a rewriting method in which a multiplexed hologram is re-multiplexed while changing a portion of the hologram. That is, Tanaka is directed to recording a multiplexed hologram while changing only a portion thereof, rather than to

prevent deterioration of a hologram due to reproduction. Therefore, Tanaka does not teach or suggest "retention of a hologram," to which claim 21 is directed.

Thus, Tanaka does not anticipate this feature. Accordingly, Applicants respectfully submit that claim 21 is patentable over Tanaka.

Claim 22 recites that the reproduced information is subsequently re-recorded and retained when the number of times of reproduction has exceeded a predetermined value.

The Office Action asserts that because the recited "predetermined value" can be arbitrary, the number of times of the re-recording process exceeds a predetermined value such as 1. However, even so, similar to the discussion above, Tanaka does not teach or suggest that the operation of the subsequent reproducing and retaining are controlled by the number of times of the reproduction. For example, Tanaka does not teach or suggest any means to measure the number of times of reproduction or use the measured number for controlling the operation of the subsequent reproducing and retaining. Thus, Tanaka does not anticipate this feature.

Thus, Applicants respectfully submit that claim 22 is patentable over Tanaka.

Claims 9, 13 and 24 are patentable at least for their dependence on patentable base claims, as well as for the additional features they recite.

Accordingly, withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 1-7 and 23 under 35 U.S.C. §103(a) over Tanaka in view of U.S. Patent No. 6,806,982 to Newswanger et al. (Newswanger). This rejection is respectfully traversed.

The rejection of canceled claims 2 and 3 is moot.

Newswanger does not overcome the deficiencies of Tanaka. Therefore, claims 1 and 4-7 are patentable at least for their dependence on claim 21, as well as for the additional features they recite.

In addition, with respect to claim 1, the Office Action admits that Tanaka does not teach or suggest re-recording the reproduced information in the same position on the optical recording medium as the predetermined position from which the information was reproduced. However, the Office Action alleges that Newswanger does. Applicants respectfully submit that this asserted combination is improper because Tanaka teaches away from such a modification.

That is, as discussed in the November 2, 2005 Amendment, Tanaka specifically teaches that the re-recording is taken place at a position different from the predetermined position from which the information was reproduced, and that is the heart of Tanaka's invention as shown in Fig 5. Therefore, the proposed modification would alter the principal of operation of Tanaka's invention. As discussed in MPEP §2143.02(VI), such altering of the principal of operation indicates that there is no motivation to combine or modify. Accordingly, Applicants respectfully submit that one of ordinary skill in the art would not have been motivated to combine Tanaka and Newswanger.

At least for these reasons, withdrawal of the rejection is respectfully requested.

The Office Action rejects claim 8 under 35 U.S.C. §103(a) over Tanaka and Newswanger, further in view of U.S. Patent No. 6,452,890 to Kawano et al. (Kawano). This rejection is respectfully traversed.

As discussed above, the asserted combination of Tanaka and Newswanger is improper. Further, Kawano does not overcome of the deficiencies of Tanaka or Newswanger. As such, claim 8 is patentable at least for its dependence on a patentable base claim, as well as for the additional features it recites. Therefore, withdrawal of the rejection of claim 8 is respectfully requested.

The Office Action rejects claim 12 under 35 U.S.C. §103(a) over Tanaka. This rejection is respectfully traversed.

Claim 12 is patentable at least for its dependence on a patentable base claim, as well as for the additional features it recites. Therefore, withdrawal of the rejection of claim 12 is respectfully requested.

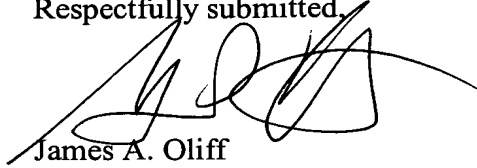
The Office Action rejects claim 14 under 35 U.S.C. §103(a) over Tanaka in view of Kawano. This rejection is respectfully traversed.

Kawano does not overcome the deficiencies of Tanaka discussed above with respect to claim 21. As such, claim 14 is patentable at least for its dependence on a patentable base claim, as well as for the additional features it recites. Therefore, withdrawal of the rejection of claim 14 is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:KXH/tbh

Attachments:

Petition for Extension of Time
Request for Continued Examination

Date: May 10, 2006

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